POSITION DESCRIPTION 1. Agency PDCN F9571									
2. Reason for Submission Redescription X New 3.	3. Service 4. Empl Of HQ Field X		fice Location	5	5. Duty Station		6. OPM	6. OPM Cert #	
Reestablishment Other Applaration (Show Positions Replaced) eplaces F5563000, Civil Engineer,			8. Financial Statements Required Exec Pers Financial Disclosure Employment & Financial Interests				9. Subje Action Yes X		
GS-0810-11.	10. Position Status Competitive Excepted (32 USC 709) X SES (Gen) SES (CR)		11. Position is Supervisory Managerial Neither X		12. Sensitivity Non-Sensitive Noncritical Sens Critical Sens Special Sens		_	13. Competitive Level 14. Agency Use OFF	
15. Classified/Graded by a. US Office of Pers Mgt b. Dept,	Agency or Estab	lishment.X d	. Second Level	Review	d. First Lev	el Review			
							1 = 1.1.5	T	
Official Title of Position Civil Engineer			Pay Plan	Occupa	ational Code 0810	Grade 11	Initials	Date 15 Mar 91	
16. Organizational Title (If different from official title)			GS 17. Name of	Employee					
18. Dept/Agency/Establishment - Nationa	c. Third Su	c. Third Subdivision - Mission Support Division							
a. First Subdivision - State A		d. Fourth Subdivision - Civil Engineering Branch							
b. Second Subdivision - ANG Wil	e. Fifth Subdivision -								
19. Employee Review. This is an accurate and responsibilities of my position.		_	Employee	Signatur	e /Date (optiona	al)			
that this information is to be used for statutory purposes related to appoints violations of such statutes or their implementing regulations. a. Typed Name and Title of Immediate Supervisor Signature Date			ent and payment of public funds. False or misleading statements may constitute b. Typed Name and Title of Higher-Level Supervisor/Manager (optional) Signature Date						
21. Classification/Job Grading On this position has been classified Title 5 USC, in conformance with or, if no published standards applicable standards. Typed Name and Title of Official Taking	d/graded as re USOPM publish ply directly, ds.	equired by ned standard	USOPM JGS S USOPM JGS	S for (d in Classify Civil Engine fication Sta	eering, (GS-0810, G		
ROGER M. PARRISH	their applica	Information For Employees. The standards and information on their application are available in the personnel office. The classification of the position may be reviewed and corrected by							
Signature //signed//		the agency or OPM. Information on classification/job grading appeals is available from the personnel office.							
23. Position Review Initials Da	te Initials	Date	Initials	Date	Initials	Date	Initials	Date	
a. Employee (Opt)									
b. Supervisor									
c. Classifier									
24. Remarks: CRA91-1008	,				,				

DUTIES:

- -- This position is located in the Civil Engineering activity at an ANG flying base which supports on base tenants and detached units. Its purpose is to serve as the architect/engineer responsible for design and construction programs under the base civil engineer. Directs subordinates engaged in technical and clerical work related to programing, design, construction management, and master planning.
- -- The incumbent manages the base comprehensive planning process which involves, through coordination with base and tenant units, the identification and development of short and long-range programs for maintenance, repair and construction of facilities, and systems for base military organizations which includes administrative and special purpose buildings, utility systems, and airfield facilities/systems.
- -- Maintains, updates and submits base master plan on functional and architectural compatibility of proposed changes within the parameters identified by the base comprehensive (master) plan.
- -- Meets with base organizations to identify priorities from their proposed projects. Establishes overall base project priority listing and presents for approval at facility board meetings.
- -- Develops budgets, project books, project forms, and other programing documents for base operations, maintenance, repair, and construction programs.
- -- Performs or oversees the performance of site surveys and investigations to determine feasibility of proposed projects, topography, and essential site configurations; or (for additions and renovations) conditions of structure and essential data prior to initiating designs. Evaluates data obtained, incorporating relevant features into design consideration and solutions. Meets or contacts local utility companies to assure design considerations include proper utility hookups for new construction and renovations.
- -- Identifies most economical and efficient procedures for design of base construction projects. Prepares and oversees the preparation of architectural/engineering drawings, specifications, and comprehensive cost estimates covering a broad range of complex facilities and utility systems for all areas of support of the ANG base, which includes airfield pavement, fire detection and suppression systems, intrusion detection systems, lighting systems, roads and parking areas, utilities (electrical and mechanical), fuel storage and delivery systems, and various types of buildings such as shops, aircraft hangers, offices, warehouses, storage, and operations.
- -- Prepares documents and establishes schedules for advertising construction contracts. Submits documents to contracting officer. Monitors construction of local, RPM, and MCP construction projects and assures that the inspector accomplishes required tasks to ensure work meets contract requirements. Reviews, evaluates, and determines

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adequacy of shop drawings, samples, certificates of compliance, laboratory analysis, paint certifications and other submittals and data from contractors. Determines compliance or noncompliance for such submittals. Prepares and submits RPM and MCP monthly status reports to National Guard Bureau (NGB).

- -- Prepares detailed fee estimates on architect/engineer contracts for design services and all pertinent correspondence, plans, reports, and contract criteria necessary for contract submission. Determines professional capabilities of architectural and engineering firms as a participant in the selection process. Performs technical review of design submittals and prepares review comments for submittal to NGB.
- -- Provides technical engineering advice to the operations section of civil engineering and other base functions responsible for resource protection, occupational health, communications, ground safety, and disaster preparedness.
- -- Maintains complete records of design and construction project status on data processing (PC) equipment.
- -- Monitors the accomplishment of the yearly Prime BEEF training plan, and with the readiness manager, develops a cohesive program to accomplish training with maximum participation.
- -- Performs other duties as assigned.
 Factor 1 Knowledge Required by the Position Level 1-7 1250 pts
- -- Knowledge of professional engineering and architectural concepts, principles and practices applicable to the full range of duties concerned with the planning, design, renovation, maintenance, and construction of such structures as office buildings, warehouses, education facilities, aircraft hangers, shops, and dormitory facilities. Knowledge is also required in practices applicable to the full range of duties concerned with the planning, design, renovation, construction, and maintenance of utility systems and airfield facilities in support of the base such as electricity, water, natural gas, storm and sanitary sewers, airfield pavements, fire detection and suppression systems, intrusion detection systems, airfield lighting, and streets and parking facilities.
- -- Knowledge and skills sufficient to design or inspect the construction of such buildings and utilities.
- -- Knowledge in related fields of activity or disciplines (i.e., architectural, electrical, mechanical, civil, and structural engineering) to ensure that areas of overlapping responsibilities among technical disciplines receive proper design consideration and that total project objectives are met.

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- -- Knowledge of modern management procedures and automated data systems as they relate to managing a complex, multidisciplinary operations and maintenance organization.
- -- Knowledge of Federal Acquisition Regulations (FAR) as they pertain to selection of architectural/engineering and services fields.
- -- Knowledge of FAA regulations, building codes, local codes, and zoning ordinances.

Factor 2 - Supervisory Controls

Level 2-4 450 pts

-- Works under the supervision of the Base Civil Engineer/Architect who makes assignments in the form of broad functional responsibilities, goals and objectives. Incumbent is given latitude in establishing priorities and objectives and in planning own work, resolving problems and carrying assignments through to completion. Major deviations from standard procedures or matters involving policy are referred to the Base Civil Engineer/Architect.

Factor 3 - Guidelines

Level 3-3 275 pts

-- Guidelines are provided by the US Air Force (USAF), NGB, regulatory manuals and publications, local, state and federal codes and standards, manufacturer's catalogs and manuals, and publications. Incumbent must use judgement and initiative in applying and adapting principles and practices to match existing conditions as guidelines are general and do not always match unique requirements or give clear solutions to complex problems. Major work is reviewed by the Base Civil Engineer/Architect and by submission to NGB for review and approval. Technical work is generally accepted as being accurate without review.

Factor 4 - Complexity

Level 4-4 225 pts

-- Assignments involve planning, design, and construction of new buildings and utilities, and/or extension, restoration, modernization of existing buildings and utilities. Incumbent exercises judgement in adapting traditional techniques or evolving new ones to solve complex problems. Although there exists a multitude of regulations and directives, many conditions arise where the incumbent must use his/her professional expertise and judgement to complete complex assignments. Incumbent must recognize the relationship of problems and practices of related disciplines either toward solving engineering and related problems or determining the most appropriate source for expertise and assistance.

Factor 5 - Scope and Effect

Level 5-3 150 pts

-- The purpose of the position is to plan, design, organize, control, coordinate, and/or review and approve the actions inherent in the renovation, restoration, design, and construction of buildings and utilities. The overall objective of the position is to provide and maintain a satisfactory working environment for the entire base population that will permit accomplishment of the mission.

Factor 6 - Personal Contacts

Level 6-3 60 pts

-- Contacts are with the civil engineering staff of NGB, US Property and Fiscal Officer, Base Civil Engineer/Architect, base contracting and finance personnel, leaders from group and tenant organizations on the base, airport officials, local and state government officials, architects and engineers, construction contractors, manufacturers and material suppliers, and employees within the office.

Factor 7 - Purpose of Contacts

Level 7-2 50 pts

-- Contacts are made to select design firms, conduct surveys and investigations, coordinate and obtain approval for projects, resolve design and/or construction problems, resolve environmental issues, select priority projects for design/construction, consult, advise, resolve problems, exchange information, and coordinate issues related to civil engineering.

Factor 8 - Physical Demands

Level 8-2 20 pts

-- The work involves regular and recurring field surveys and construction site inspections. Such inspections involve a considerable amount of physical activity, including walking, climbing and stooping.

Factor 9 - Work Environment

Level 9-2 20 pts

-- Most work is performed in an office environment except for frequent visits to building site locations during the construction management phase. Such visits expose the incumbent to a variety of hazards associated with construction activities, both buildings/utilities and airfield facilities, including high noise levels, dust, chemicals, moving equipment, low flying aircraft, etc.

EVALUATION STATEMENT

A. Title, Series and Grade: Civil Engineer, GS-0810-11

B. References:

- 1. USOPM JGS for Civil Engineering, GS-0810, Jun 66.
- 2. USOPM JGS for Architecture, GS-0808, Oct 86.
- 3. USOPM JGS for Facility Management, GS-1640, Jun 73.
- 4. USOPM Introduction To The Position Classification Standards, Jan 90.
- C. <u>Background</u>: This position description is being rewritten to recognize that the required duties and responsibilities are interdisciplinary and are classifiable to two professional occupational series.

D. Series, Title and Grade Determination:

- 1. <u>Series</u>: This position involves knowledge characteristic of two professional series (Engineering and Architecture), to plan, design, construct and maintain structures and facilities, utility systems, and airfield systems at an ANG flying base. On pages 22 and 23 of the Introduction To The Position Classification Standards it states that "An interdisciplinary professional position is a position involving duties and responsibilities closely related to more than one professional occupation. As a result, the position could be classifiable to two or more professional occupational series. The nature of the work is such that persons with education and experience in either of two or more professions may be considered equally well qualified to do the work ... The final classification of the position is determined by the qualifications of the person selected to fill it".
- Individuals with a degree and appropriate experience in either Engineering or Architecture can effectively perform the duties of the position. There is support in this determination when considering information found on page 7 of the GS-0808 series. states "Both architecture and civil engineering are disciplines defined and recognized as professions by academic institutions, industry, and Government. Each discipline includes positions concerned with the design and construction of buildings and related structures. Architect positions and certain types of civil engineer positions may have virtually inseparable duties and inherent knowledge, skills, and abilities. The objectives, functions, activities, and subject matter of such positions may be quite similar if not identical. The duties and responsibilities of such positions and the qualifications required for the work are such that persons with training and experience in either profession may be considered to be equally well qualified for the work. Such a position may be designated as interdisciplinary for recruitment purposes when the problems may be approached by applying the principles and methods of architecture or of civil engineering."

- Under direction of the base Civil Engineer/Architect, the incumbent is responsible for activities such as (1) design and construction programs, (2) first line supervision of subordinates engaged in technical and clerical work related to programing, design, construction management, and master planning, (3) operating utility systems; (4) providing fire protection and aircraft crash rescue services; (5) managing ANG real estate and related installation support services; and (6) furnishing civil engineering/architecture support to any nonflying units located on or off base for fiscal and supply The GS-1640 series was used to cover those duties that involve managing the operation and maintenance of buildings, grounds and other facilities such as posts, camps, depots, power plants, parks, forests, and roadways. The GS-0810 Civil Engineering and GS-0808 Architecture series were used for those duties concerned with the management, supervision or performance of planning, designing, constructing, and/or maintaining structures and facilities that provide shelter, support transportation systems, and control natural resources. Since the primary skills and knowledge necessary to perform the duties of the position and the qualifications required for recruitment to the position are civil engineering/architecture, the GS-0810 and GS-0808 series are considered most appropriate. These series also represent the highest level of work being performed.
- 2. $\underline{\text{Title:}}$ The title established by the GS-0810 standard is Civil Engineer

3. Grade:

- (a) Both Parts II and IV of the GS-0810 series were used to evaluate this position. Part II deals with planning and design of base facilities whereas construction surveillance and facilities management activities are covered under Part IV.
- The complexity of assignments compares to those performed by the Base Civil Engineer/Architect. Planning and design activities are primarily conventional, requiring some adaptation of standard quides/criteria or consideration of alternative approaches. compares favorably to the GS-11 level of the standard. Assignments do not meet the GS-12 level in that work is not primarily of an advanced nature nor does it involve large conventional projects encompassing a number of components/phases of project work. The incumbent is expected to complete assignments without technical guidance, (though technical quidance is readily available from the Base Civil Engineer/Architect). Incumbent may be required to coordinate work with and give technical guidance to CE personnel involved in related phases of work and refers matters of policy or critical nature to the supervisor. This meets the GS-11 level of the standard as to level of responsibility. It exceeds the GS-09 level where responsibility is limited to exercising judgement based strictly on past or standard practices, but does not meet the GS-12 criteria as outside coordination is the responsibility of the

Base Civil Engineer/Architect and judgment in working on advanced planning work is not a requirement of the job.

- (c) Evaluation of the position under Part IV results in the following: the facility is a relatively small installation, compared to that considered typical of the GS-12 level (i.e., an extremely large military complex), consisting of an ANG flying unit, and at certain installations, a communications squadron, tactical control unit, or similar small units, and small NGB office(s). Additionally, a remote site such as a firing range, combat communications unit, tactical control flight, electronic installation unit, etc., may be managed. Funding is managed through one chain of command, and all activities are under NGB. The military activity consists of typical administrative buildings, special purpose buildings, warehouses, airfield facilities/systems, and certain bases, dormitories and other minor facilities. In developing short and long range programs for construction, maintenance and repair of such activities, the position is considered to compare favorably to the GS-11 criteria and illustrative examples. The complexity aspect of development work is not considered to equate to the GS-12 level, i.e., facilities of substantial complexity and variety, in a number of locations or under the control of a number of activity managers (an extremely large military complex). The overall characteristics of this position are comparable to the GS-11 level.
- (d) Responsibility is at the GS-11 level. The incumbent works for a higher grade engineer/architect who administers the overall facility engineering program and is able to provide expert technical advise and assistance; assignments require the application of standard engineering/architecture practices and/or modifications thereof (i.e., limited projects of a standard nature with national oversight being provided); and personal contacts are primarily with personnel within the organization, contractors, etc. Although some contacts may also be with public officials and local citizens groups, technical authority lies with the Base Civil Engineer/Architect.
- (e) The position includes some limited supervisory responsibility. It does not participate in the overall work of the Base Civil Engineer/Architect except in his/her absence and several supervisory responsibilities are retained by the Civil Engineer/Architect. Based on the above discussion, this position is properly graded at the GS-11 level.
- E. $\underline{\text{Conclusion:}}$ This position is classified as Civil Engineer, GS-0810-11

Classifier: Roger M. Parrish Region: NGB-PR-WPC Date: 15 Mar 91